

In Europe *Butomus* occurs in marshes and along borders of streams and lakes from Italy northward to Norway. Thomé<sup>1</sup> gives a good colored plate and description of the species. *Butomus* not only produces many seeds but also numerous small cornlike buds are developed on the submerged rhizome. It is, therefore, well adapted for spreading rapidly under favorable conditions.

Knowlton,<sup>2</sup> 1923, in discussing the distribution and rapid spread of *Butomus umbellatus* along the St. Lawrence River, concluded with the following statement: "As it has many seeds it would seem quite possible for it to work gradually up the St. Lawrence and its tributaries, so that some day it may make its appearance by Lake Ontario or Lake Champlain within the limits of the United States." The extent of the area already occupied by *Butomus* in the southern Champlain Valley indicates that probably it became established prior to 1923. It is now one of the dominant species of the marsh and shore vegetation in this region, and in the future it may be expected to appear in similar situations over a wider area.

CORNELL UNIVERSITY.

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## SOME NEW SPECIES AND VARIETIES FROM OREGON

L. F. HENDERSON

*SCIRPUS malheurensis*, sp. nov. Stems 18–24 dm. high; primary involucre bract slightly exceeding the inflorescence, secondary ones much shorter; spikelets cylindric-ovoid, 8–12 mm. long by 4–5 mm. thick, greenish-brown, 2–4 in the clusters; rays from sessile to 2.5 cm. long; scales much cleft, their edges ciliate with long many-celled hairs; midvein long-excurrent, the tip either included between the long lobes of the scale or rather long-aristate, serrate or hispid with long fang-like brown teeth which are 1-celled and extend, reduced in size, far down the back of the scale; filaments of the 3 stamens strap-shaped; bristles 6, slightly longer or shorter than the akene, retrorsely barbellate to near the base; style 2-cleft; akene 2–2.5 mm. long, 1.25–1.5 mm. wide, obovate, plano-convex and often angled on the back, generally light-olivaceous, strongly mucronate, finely pitted under high magnification.—In water or on wet shores of Malheur Lake, Harney County, OREGON, July 15, 1927. My no. 8655.

Close to *Scirpus acutus* Muhl., but differing in having the involucre

<sup>1</sup> Thomé, *Flora von Deutschland* 1: p. 84. 1886.

<sup>2</sup> Knowlton, Clarence H. *Butomus umbellatus* on the St. Lawrence River. *RHODORA* 25: 220–221. 1923.

bract longer than the inflorescence; the scales nearly round and much-cleft; the long hairs on the edge of the scales; the remarkable dark teeth or papillae on the back of the scale and on the long-exserted midrib.

*SCIRPUS CONGDONI*, Britton, var. **minor**, var. nov. Differs from the typical form of the species in lower stature, at most 28–35 cm. high; shorter rays; stem leaf-bearing at middle; lower leaves only 1 dm. long or less; short scales merely acute to short-acuminate.—Collected by me along a creek, Mackenzie Pass, OREGON, my no. 7108; also by *Lyle Wynd* at Pole Bridge Creek, Crater Lake Park. His no. 1769.

*JUNCUS* (§*NODOSI*) **inventus**, sp. nov. Stems 3–6 dm. high, arising singly from somewhat enlarged nodes of a very long rootstock; basal leaves longer than or shorter than the stem, stiff, terete as are those of the stem; stem-leaves erect, the upper internode of the stem diverging strongly from the leaves; heads few in a rather dense cluster, brown, 8–12 mm. in diameter; perianth 4–5 mm. long, its outer segments slightly longer and more subulate than the inner; stamens 6, half the length of the perianth, anthers slightly longer than the filaments; capsule *oval to ovate*, but sloping gradually to an apiculation 1–1.5 mm. long, 3-sided, 1-celled; seeds yellow, either acute or truncate, with a white apiculate tip, reticulate with 20–30 longitudinal lines and cross-lined areolae.—Moist, sandy shores of Siltcoos Lake, 2 miles from the ocean, Lane County, OREGON. My no. 6091.

I first named this plant for the lake where it was found and made a few distributions under that unpublished name, but I am now convinced that this plant occurs in other spots in sand along the Pacific, hence the change in name. *Juncus inventus* is related to *J. nodosus* L., more nearly to *J. Torreyi*, Coville. It were better, it seems to me, to put these all together as varieties of *J. nodosus*, but since *J. Torreyi* has been cut off, we must recognize this species, as there is more difference between this and either *J. nodosus* or *J. Torreyi* than there is between those two species. This differs from *J. Torreyi* in darker heads; strongly divergent upper joint of stem; wider, less subulate capsule; and nearly equal perianth-segments, the outer slightly longer and more apiculate, and all noticeably scarious-edged.

*DAMASONIUM CALIFORNICUM*, var. **Biddlei**, var. nov. Differs from typical *D. californicum*, Torr. in narrower leaves, most of them long, narrow phyllodes; petals more deeply dentate and with more teeth; and rather more akenes.—Common in ditches, in water or mud, near Burns, Harney County, OREGON, June 23, 1927. My no. 8256.

Dedicated to the memory of the late Henry J. Biddle, an amateur botanist of Portland and a most helpful friend.

**ALLIUM GEYERI**, Wats., var. **graniferum**, var. nov. Differs from the ordinary form of northern Idaho in having numerous bulblets amongst the flowers or entirely taking their places.—Moist to wet natural meadows, Austin Ranch, near Austin, Grant County, OREGON, my no. 5397, also *Cusick*, no. 1827.

The spathe is often 3-valved, sometimes 2-valved. Though the crests are lower than in the typical form of the species, I can find no good specific characters to separate them.

**ALLIUM Robinsonii**, sp. nov. Bulb ovoid, large for the size of the plant, devoid of special reticulation; stem slender,  $\frac{2}{3}$  under ground, slightly 2-edged, 3–7 cm. long; leaves much exceeding the stem, arcuate, 1.5–2 mm. wide; bracts 2, ovate, abruptly acute, rose-purple; flowers few, 5–12, 7–9 mm. long; pedicels slightly shorter; perianth-segments white to light-pink, with red midvein, obtuse, oblong; stamens  $\frac{1}{2}$  to  $\frac{1}{3}$  the length of the segments; ovary distinctly crested; style shorter than the stamens or about equaling them; filaments rather coarsely confluent.—Gravel and drifting sand, confluence of John Day River with the Columbia, OREGON. My no. 5110.

Differs from the related *Allium Brandegei* in crested ovary, obtuse segments of corolla, and larger bulbs, with no special reticulation; from *A. parvum*, Kell. in its 2-edged stem, narrower leaves and conspicuously crested ovary. I take pleasure in dedicating this pretty species to Dr. B. L. ROBINSON of the Gray Herbarium, to whom I am under many obligations for past courtesies.

**ALLIUM mirabile**, sp. nov. Plant 15–20 cm. high, very slender and sinuous, with central bulb generally wanting, but with 1, mainly 2, oblong, tuber-like, strongly divaricate bulbs at base, with many filiform root-fibres from the base of the stem; leaves filiform, 2–3, shorter than the stem; bract one, often 2-lobed, ovate, very thin, abruptly acuminate; umbel 7–12-flowered; flowers on slender pedicels (7–12 mm. long), white to light-pink; segments 10–12 mm. long, narrowly lingulate, but involute and appearing acuminate; stamens half as long as the segments, slender, with small cordate-sagittate, sharply pointed anthers; filaments dilated at base and united into a scalloped ring; ovary blunt and crestless, ripening only 1 or 2 seeds.—Dry, shady fir woods in loose, rocky soil, Eight Dollar Mt., near Selma, Josephine County, OREGON, June 17, 1926. My no. 6098.

*Allium mirabile* greatly resembles *A. Bolanderi*, they agreeing in the peculiar bulbs and serrate inner perianth-segments. But, while the perianth-segments in true *A. Bolanderi*, according to an examination at the Gray Herbarium, are *acuminate*, they are never so in *A. mirabile*, but lingulate and obtuse or at most acutish; the leaves are only 0.5 mm. wide in this species, wider in *A. Bolanderi*; the bract is

single, at most 2-parted, broadly ovate and apiculate; stamens nearer  $\frac{1}{3}$  than  $\frac{1}{2}$  the length of the perianth; filaments dilated at base. From an examination of *A. Bolanderi*, made for me at the Gray Herbarium, I am informed that "the outer bulb-coats in *A. Bolanderi* are rather thick and firm; in your plants they are very thin, and, when wet, become flaccid."

**ALLIUM punctum**, sp. nov. Plant 6–9 cm. high, slender; leaves 2, slightly to strongly falcate, 2–3 mm. wide, slightly to much exceeding the stem and closely investing it to about its middle, where they widely diverge; bulb ovoid, 1.5–2 cm. long; outer coats of bulb very dark, central yellowish-gray, inner white, some of the central coats with oblong-hexagonal cells marked all over their faces and walls with minute indentations as if made by the point of a pin; bracts 2, abruptly acuminate or acute, 0.66–1 cm. long, colored like the perianth; flowers 12–16, on pedicels about 1 cm. long, dark wine-color to nearly black-purple; perianth-segments 8–10 mm. long, oblong, rounded to acutish at apex; stamens  $\frac{2}{3}$  the length of the perianth, filaments thick-subulate at base and united into a scalloped ring; crests of ovary 3, wide and mountain-like, slightly retuse at apex, white.—In moist, or later dry, rocky flats, near the Donner-and-Blitzen River, 8 to 10 miles north of Frenchglen, Harney County, OREGON, May 20, 1927. My no. 8813.

The beautifully punctate middle coats of the bulb account for the name.

**IRIS innominata**, sp. nov. Plant about 30 cm. high or less, from a slender ascending rootstock 3–4 mm. in diameter; leaves abundant, dark-green above, lighter below, violet-purple or green at base, 2–3 mm. wide, ordinarily with revolute margins, longer or shorter than the stems, the apex narrowly pointed; bracts or stem-leaves 2 or 3, their clasping bases 4–9 cm. long, the free portion 1.5–3 cm. long; bracts subtending the flowers about 4 cm. long, nearly equal, green, broadly lanceolate to ovate when opened, scarious at edges; flowers generally 2, on pedicels 5–10 mm. long; flower-tube 2–3 cm. long, almost filiform, the whole flower brilliant dark-yellow, with delicate purple lines on the sepals; sepals oblanceolate, about 4.5 cm. long above the short throat, very narrow at base; petals slightly shorter, lighter yellow and without purple lines, narrowly oblanceolate to elliptic, entire; capsule oblong to oval, 2–3 cm. long; seeds 3 mm. long, nearly round in outline, strongly angled, their sides vermiformly marked.—Dry, sunny woods, Rogue River, about 8 miles above the ferry at Wedderburn, Curry County, OREGON, fl. May 23, fr. July 14, 1929. My no. 10,086.

Differs from *Iris Purdyi*, Eastwood in dark-green leaves only 2 mm. wide; lower bracts or stem-leaves not overlapping, their sheathing

bases not inflated; flower-bracts shorter; sepals shorter, as is the perianth-tube; capsule obtuse at base. From *I. californica* it differs in narrower, darker leaves; stem-leaves more sheathing; shorter and less acuminate bracts; and much shorter perianth-tube. The color of the flower is exactly that of *I. bracteata*, or even darker. *I. Douglasiana* was in places up the Rogue River, associated with *I. innominata*, and wherever this was the case it had much more yellow than usual, showing the beginnings of hybridization.

**MONTIA Sweetseri**, sp. nov. Plant procumbent to accumbent, with numerous stems diminishing in size to a flagellate tip and strongly resembling those of *M. parvifolia*, all from an exposed rootstock or caudex 1–10 cm. long and 4–6 mm. thick; radical leaves round to ovate, 3–4 cm. long including the petiole (2–3 cm.); stem-leaves of the same shape but on short petioles, the smallest only 3–4 mm. long; flowers pink, on pedicels about 1 cm. long, these lengthening in fruit to even 2 cm.; sepals round, 3–4 mm. long, greenish-pink; petals oblanceolate, emarginate, mostly about 14 mm. long; seeds slightly pitted, shining, 1.5 mm. in length, 1 mm. in width.—Discovered by Prof. and Mrs. A. R. Sweetser of the University of Oregon, on exposed rocks and earth at the base of Humbug Mountain, which overlooks the ocean at Brush Creek, Curry County, OREGON, May 30, 1929, later by myself, and in fruit in July. My no. 10,193.

In many ways this plant superficially resembles *Montia parvifolia*, but it differs in every character: size and length of rootstock, size of leaves, shape of cauline leaves, greater size of flowers, and larger seeds, those of *M. parvifolia* never being over 1 mm. long; and to show that this is not merely size due to location I may say that *M. parvifolia* was collected by me north, east and south of this spot.

**SILENE insectivora**, sp. nov. Plant 6–18 cm. tall, very glandular from top to bottom; lower leaves from 4–18 cm. long, those of the lower part of the stem much longer than the radical, from obovate-spatulate to linear-oblanceolate, obtuse to acute; upper leaves decreasing rapidly to bracts, 1–2 cm. long at summit; peduncles branching, 1–3 cm. long; pedicels long, erect to nodding; flowering calyx oblong, 15–20 mm. long by 6 mm. wide in center, its lobes narrowly triangular to lingulate, often over  $\frac{1}{3}$  the length of the tube, not ciliate but with abundant long glands; petals  $\frac{1}{4}$  longer than the calyx, narrowly cuneate, the claw somewhat lacerate above, the blade divided into 2 foot-like parts; appendages narrowly lanceolate, acute; stamens slightly shorter than the styles; ovary oblong, with styles about  $\frac{1}{2}$  the length of the petals; ripened capsules and seeds unknown.—Collected by L. Constance, student at the University of Oregon, in meadows of Sprague River, Klamath County, OREGON, June 28, 1928. My no. 9427.

This plant is related to *Silene Scouleri* and *S. Hallii*, but differs from both in general appearance, long peduncles and pedicels, stems and foliage so glandular as to be covered from top to bottom with small insects, very long calyx-lobes, oblique foot-like lobes to corolla, and lanceolate acute appendages.

**SILENE MONTANA** Wats., var. **viscida**, var. nov. Agreeing with Watson's description of *S. montana*, save that the whole plant, instead of being finely pubescent, is finely glandular from top to bottom.—Collected by *Lyle Wynd*, student at the University of Oregon, in dry woods, Crater Lake Park, OREGON, in High Canadian Zone, July 27, 1928. His no. 2357.

**RANUNCULUS OCCIDENTALIS**, var. **dissectus**, var. nov. This plant, from its pubescence and long, hooked akenes, belongs with *R. occidentalis*, but in its deeply cleft to divided radical leaves it looks, at first view, like some form of *R. orthorhynchus*.—Dry slopes of Crater Lake Park, OREGON, near Pole Creek Bridge, where collected by *Lyle Wynd*, July 12, 1928. His no. 2221. It was also collected by *Wm. C. Cusick* in Summit Prairie (no. 2643), later by *L. E. Dethling*, of the University of Oregon, on moist banks of Upper Paulina Creek, Paulina Mts., Oregon (no. 77).

**CARDAMINE Pattersoni**, sp. nov. Plant annual, 11–12 cm. high, much branched from the base or near it, so as to be 7–9 cm. wide at top; whole plant glabrous, or at most puberulent at base; leaves with 3–5 round to obovate leaflets 3–4 mm. long, the terminal leaflet often slightly undulate; pedicels becoming thick and lengthening in fruit, about 5–6 mm. long in flower, 15–20 mm. in fruit; rachis rather zigzag; sepals colored, 2 mm. long, ovate; corolla dark-pink or rose; petals 6 mm. long, obovate, retuse; capsule including style 24 mm. long, style about 3 mm., capsule 1.5 mm. wide; seeds yellowish-brown, 1 mm. wide by 1.25 mm. long; cotyledons accumbent, radicle very noticeable.—Discovered by *Rollo Patterson*, student at the University of Oregon, on moist, mossy cliffs of Saddle Mt., Clatsop County, OREGON, at about 2800 feet elevation, June 10, 1928. No. 22 of his Saddle Mountain collection.

Only two specimens of this pretty little plant were collected, but fortunately both were in flower and ripe fruit. This plant is so unique that no other comes very near it, at least in the Western United States.

**ARABIS Wyndii**, sp. nov. Plant about 4 dm. high, branching at base; leaves and lowest part of stem with abundant forked hairs, most of the stem and upper surfaces of leaves mainly glabrous; leaves crowded at base, oblanceolate, entire, 1–2 cm. long, strongly ciliate with forked hairs, mainly glabrous above, hairy below; stem-leaves 8–12 mm. long, mainly lacking auricles, linear; raceme rather many-fruited, flowers as yet unknown; mature pedicels reflexed, glabrous, slender, 3–6 mm. long; capsules 5–8 cm. long, 1.5–2 mm.

wide, straight or slightly arcuate, the point 1–3 mm. long, style and stigma very short, valves nerved at base  $\frac{1}{3}$  their length; seeds more or less 2-rowed, orbicular, narrow-winged, 1.5 mm. wide.—Collected by *Lyle Wynd*, student at the University of Oregon, in Crater Lake Park, OREGON. Wynd's no. 2322.

This plant appears to belong with *A. pulchra*, Jones, but differs in its furcate hairs toward the base of the plant; glabrous upper stem and leaves, the latter with ciliate edges; and glabrous capsules.

**THERMOPSIS subglabra**, sp. nov. Plant 9–10 dm. high, entirely glabrous save the calyx, edges of bracts and back of suture of pod, which are appressed-pubescent; stipules about 4 cm. long, oval to ovate, apiculate to obtuse, more than 2 cm. wide; petioles slender, 3–4 cm. long; leaflets oblanceolate to obovate on the same plant, 3–5 cm. long, 1–2.5 cm. wide; flowers 10–13, about 2 cm. long, on slender, glabrous pedicels 5–10 mm. long; bracts ciliate, oblong to ovate, 6–8 mm. long; calyx appressed-pubescent to slightly villous, nearly regular, campanulate, with ovate nearly equal teeth; corolla with banner much shorter than the wings and keel; young legume glabrous save the upper edge, which is appressed-ciliate; mature fruit unknown from this locality. (An unnamed specimen in fruit, *John R. Leiberg*, no. 4195, "from grassy slopes of Umpqua-Rogue River Divide, near Head of Elk Creek" is undoubtedly the same, as it is equally glabrous on fruit and all other places save the calyx).—Shady woods of Culp Creek, near base of Bohemia Mt. Divide, between Lane and Douglas Counties, OREGON. First collected by *Rollo Patterson*; afterward by myself. My no. 9959.

Close to Howell's *Thermopsis gracilis*, but of larger size and lacking its abundant pubescence.

**COTYLEDON glandulifera**, sp. nov. Plant erect, 22–27 cm. high, from a cluster of spatulate leaves at the summit of the rather bare, thick, long rootstocks (6–8 mm. thick); whole plant, save flowers of a decided red-purple; lower  $\frac{2}{3}$  of stem bare, upper  $\frac{1}{3}$  glandular and thickly clad with reddish, glandular-ciliate oblong bracts; flowers greenish-yellow, 12–14 mm. long; calyx-lobes ovate, very acute, 5 mm. long, glandular-ciliate and slightly united; stamens slightly longer than the calyx, with oblong anthers, filaments triangular-subulate; carpels nearly erect, slightly united at base, finely papillate, 10 mm. long, reddish; pedicels shorter than the corollas, rather thick, glandular-pubescent; seeds many, narrowly oblong-lanceolate, striate and cross-barred.—Discovered by *Mr. and Mrs. J. R. Leach* of Portland, Oregon, June 1, 1928, along the trail down the Rogue River, 3 miles below Alameda, Josephine County, OREGON. Their no. 1599.

The discoverers say of it: "The whole plant strikes your eye at some distance by its red color."

**DODECATHEON poeticum**, sp. nov. Stem eventually 22–30 cm. high, glandular-puberulent its whole length, the base swollen and bearing many descending delicate fibrous roots; leaves obovate to oblanceolate, obtuse to apiculate, the blade 5–12 cm. long, petioles from as long as to  $\frac{1}{3}$  as long; flowers 1–10, on pedicels 1–4 cm. long; calyx-lobes ovate-lanceolate, slightly shorter than the ripe capsule; corolla with slightly yellow circle at base, then a crimson, crenate narrow band, next a broad yellow band, then the main rose-pink outer portions; staminal tube generally black, sometimes with some yellow, half as long as the 5 anthers; capsule ovoid, 4–7 mm. long, opening generally through the teeth.—Bluffs of the Columbia River, near the east line of Hood River County, OREGON, April 2, 1924, fruit May 13. My no. 503 of the 1924 collection.

I wrote up this species in 1924 and submitted flowers and fruit to the late Prof. C. V. Piper at Washington. He thought it a good species and advised publication. I hesitated at that time to add to the flood of new species of *Dodecatheon*, and laid it by. Last year I sent it to Prof. Morton E. Peck, studying at the Gray Herbarium, and he agreed with Piper that it is an undescribed species, differing, at any rate, from anything in the Gray Herbarium. Since the crimson ring on the flower so simulates in miniature that of *Narcissus poeticus* I have given it this specific name.

**SYNTHYRIS ROTUNDIFOLIA**, var. **Sweetseri**, var. nov. Differs from the typical form of the species only in remarkably long, rather than round, and more incised leaves; larger stature and bluer flowers.—Collected by Prof. A. R. Sweetser, Head of the Department of Botany at the University of Oregon, as well as by myself, on shady bluffs of Slate Creek, Redwood Highway, Josephine County, OREGON, March 22, 1925; subsequently found in many places. My no. 5860.

**ARTEMISIA DISCOLOR**, var. **glandulifera**, var. nov. Differs from the typical form of the species in not being tomentose below, but very glandular; the flowers also conspicuously glandular and giving off a delicious aroma.—Growing on the edge of a cold stream, dropping from the subalpine heights of Eastern Stein's Mts., beyond Alvord Ranch, Harney County, OREGON, July 2, 1927. My no. 8489.

**CHRYSOTHAMNUS BLOOMERI** (Gray) Greene, var. **pubescens**, var. nov. Differs from the typical form of the species in being pubescent, or among the heads slightly tomentose.—Sent to us from open Fremont Valley, northern Lake County, OREGON, by Mrs. Alvin S. Hawk. No. 11455 of the University of Oregon Herbarium.

**HIERACIUM CYNOGLOSSOIDES**, Arv., var. **ursinum**, var. nov. Differs from the typical form of the species, which is always glabrous above to but slightly pubescent, in being covered nearly to the base with black, glandular hairs, giving it a resemblance to a bear's coat.—Amongst yellow pines, on serpentine outcrops, 2 miles west of Roose-

velt Highway at Carpenterville, Curry County, OREGON, July 14, 1929. My no. 11426.

LUINA HYPOLEUCA Benth., var. **dentata**, var. nov. Differs from the typical form of the species in its strongly dentate leaves, their upper surfaces apparently always tomentose or floccose; flowers 14–15 mm. long.—Rocky bed and banks of the South Coquille River, at the bridge below Powers, Coos County, OREGON, July 17, 1929. My no. 11431.

SOLIDAGO CALIFORNICA, var. **aperta**, var. nov. Like the typical form of the species, as it exists around Grant's Pass, OREGON, but with the clusters of the panicle from contiguous to 3 cm. apart.—Dry, exposed hillside, 15 miles down the Illinois River, below Selma, Josephine County, OREGON, June 18, 1926. My no. 7073.

All types of these plants are in the herbarium of the University of Oregon. Many of the collectors not having used numbers, I have in such cases used my own.

UNIVERSITY OF OREGON,  
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SOME RARE INTRODUCTIONS NEAR HARRISBURG, PENNSYLVANIA.—While botanizing in an abandoned field near Harrisburg, Pennsylvania I found a large colony of *Thlaspi perfoliatum* L. According to records available only two stations of this plant have been reported on this side of the Atlantic, one at Hamilton, Ontario and another at Geneva, New York. The colony was located on a shale hillside, together with *Viola arvensis*, *Silene latifolia*, *Lychnis alba* and *Lepidium campestre*. In the same locality I found *Thlaspi arvense* L. which is not uncommon in this section.

Another interesting find was an extensive colony of *Cynanchum nigrum* (L.) Pers. This colony was located in the South Mountain, three miles from Marsh Run, York County, Pennsylvania. There is no record of this plant from this State, except in the vicinity of Philadelphia. Both of these plants are of European origin, and it would be interesting to know how they became established in central Pennsylvania.—H. A. WARD, Harrisburg, Pennsylvania.

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## A NEW LEPIDIUM FROM NORTH CHINA

ARTHUR PAUL JACOT

*Lepidium apetalum* was described by Willdenow from a single maimed specimen from Siberia. He states that the leaves are